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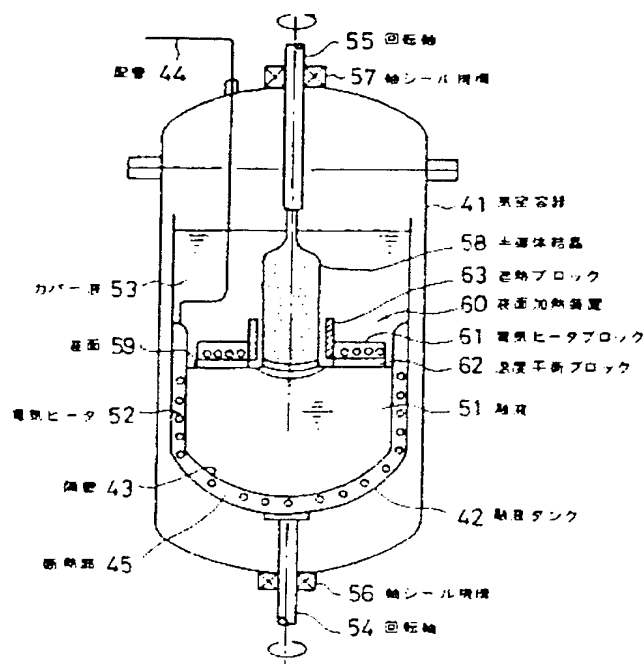
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APPLICANT : SEIRYO ENG CO LTD;

INVENTOR : UEYA KATSUMI;

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TITLE : APPARATUS FOR PRODUCING
SEMICONDUCTOR SINGLE CRYSTAL



ABSTRACT : PURPOSE: To produce a semiconductor single crystal having excellent electrical uniformity, by placing a heater contacting with or slightly immersed in molten liquid of a semiconductor raw material over the whole liquid surface.

CONSTITUTION: A desired semiconductor raw material is charged into a molten liquid tank 42 and melted to molten liquid 51 of a specific temperature or thereabout by electrifying an electric heater 52 and raising the temperature in the molten liquid tank 42. The electric heater 52 is switched off and the space formed by the molten liquid tank 42 and a partition wall 43 is evacuated with a vacuum pump through a line 44 to form a heat-insulation part 45 which prevents the increase of the temperature of the molten liquid 51 near the side wall of the molten liquid tank 42. Separately, an electric heater block 61 of a liquid surface heating apparatus 60 is electrified to keep the upper layer of the molten liquid 51 to a predetermined temperature in high accuracy. A semiconductor crystal 58 is pulled up and grown from the upper layer of the molten liquid 51 by slowly lifting a rotary shaft 55 under rotation keeping the above state.

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